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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/073,748      | 05/06/1998  | CRAIG DAVID WEISSMAN | 20308.702           | 1160             |

7590 09/09/2002

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EXAMINER

COLBERT, ELLA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 3624     |              |

DATE MAILED: 09/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                          |                  |
|------------------------------|--------------------------|------------------|
| <b>Office Action Summary</b> | Application No.          | Applicant(s)     |
|                              | 09/073,748               | WEISSMAN ET AL.  |
|                              | Examiner<br>Ella Colbert | Art Unit<br>3624 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 05 August 2002.

2a) This action is FINAL.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 133-165 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 133-165 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)  The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.

4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

#### **DETAILED ACTION**

1. Claims 133-156 and newly added claims 157-165 are pending in this communication filed 08/05/02 entered as Amendment E, paper no. 17.
2. Applicants' Extension of Time filed 08/05/02 has been entered as paper no. 18.
3. The finality of the rejection of the last Office action is hereby withdrawn in view of new grounds of rejection.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
5. Claim 133-165 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 5,721,903) Anand et al, hereafter Anand in view of (US 6128,624) Papierniak et al, hereafter Papierniak.

With respect to claims 133, 141,149, and 163, Anand teaches, providing a metadata system that includes a metadata schema, a facility for entering instructions into the metadata schema, and a facility for manipulating the metadata schema (col. 1, lines 5-19 and lines 38-46, col. 3, lines 59-62, and col. 15, lines 44-48); receiving instructions from a user, the instructions are entered into the metadata schema and are used to create a business database system (col. 1, lines 27-62, col. 2, lines 1-16, and col. 4, lines 4-12 and lines 23-28); and automatically generating the business database system according to the instructions contained in the metadata schema such that the

business database system is well-formed (col. 4, lines 29-50). Anand teaches all of the claim limitations of claims 133, 141, and 149 except a business database system.

Papierniak discloses a business database system (col. 5, lines 39-59, col. 15, lines 11-25, col. 17, lines 52-65, fig. 8 (302, 312) and fig. 9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a business database and to combine Anand's metadata system with Papierniak's business database system and to modify in Anand in view of his teachings of a data warehouse because such a modification would allow Anand to store large amounts of transaction-level data for later analysis and to have the ability to seek a competitive edge in business.

With respect to claim 141, Anand teaches, a computer (col. 2, lines 21-25); a processor (col. 5, lines 64-67 and col. 6, lines 1-4); and a computer program stored in memory and executed by the processor including the computer program with instructions (col. 5, lines 50-62).

With respect to claim 149, Anand teaches, a computer readable storage medium encoded with software instructions (col. 5, lines 60-62).

With respect to claims 134, 142, and 150, Anand teaches, automatically generating tables according to the instructions (col. 11, lines 28-40). Papierniak discloses automatically generating tables according to the instructions (col. 21, lines 39-67, col. 24, lines 5-67, and col. 25, lines 1-10).

With respect to claims 135, 143, and 151, Anand teaches, extracting data from sources specified in the instructions (col. 11, lines 28-40); loading the data into staging tables (col. 10, lines 30-37, col. 11, lines 17-31 and lines 45-55, and col. 14, lines 36-39); and loading the data from the staging tables into the business database system based on semantic definitions provide in the instructions (col. 4, lines 60-67 and col. 9,

lines 29-37). Anand did not teach staging tables but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have staging tables and to modify in Anand and in view of Anand's teaching of relational tables in the data warehouse and because such a modification would allow Anand to map some company specific information to a customer's data warehouse and to store the information in a set of relational tables.

With respect to claims 136, 144, and 152, Anand teaches, building aggregate tables according to the instructions (col. 15, lines 34-55).

With respect to claims 137, 145, and 153, Anand teaches, receiving further instructions from a user to define a query mechanism (col. 11, lines 34-55) and generating queries according to the further instructions (col. 13, lines 33-67 and col. 14, lines 40-49). Papierniak discloses receiving further instructions from a user to define a query mechanism (col. 14, lines 63-67 and col. 1-5) and generating queries according to the further instructions (col. 2, lines 10-33).

With respect to claims 138, 146, and 154, Anand teaches, generating reports according to the instructions (col. 14, lines 55-67 and col. 15, lines 1-14).

With respect to claims 139, 147, and 155, Anand teaches, receiving a modification of the metadata schema (col. 2, lines 1-9) and automatically adjusting the business database system according to the modification (col. 2, lines 9-16, col. 3, lines 48-55, and col. 9, lines 60-65). Papierniak discloses receiving a modification of the metadata schema (col. 22, lines 60-67 and col. 23, lines 1-3) and automatically adjusting the business database system according to the modification (col. 23, lines 4-38).

With respect to claims 140, 148, and 156, Anand teaches, the instructions provide semantic definitions (col. 10, lines 30-37) and the business database system is

automatically generated using the semantic definitions such that the business database system is well-formed (col. 17, lines 6-27 and col. 18, lines 38-61).

With respect to claims 157, 159, 161, and 164, Anand teaches, further comprising loading data into the business database system according to the instructions contained in the metadata schema (col. 4, lines 19-28).

With respect to claims 158, 160, 162, and 165, Anand teaches, further comprising operating on the business database system according to the instructions contained in the metadata schema (col. 7, lines 16-25).

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brachman, Ronald J., Khabaza, Tom, Kloesgen, Willi, Piatetsky-Shapiro, Gregory, & Simoudis, Evangelos, "Mining Business Databases", discloses business rules, metadata, and data warehousing.

Friedland, Liam, "Accessing the Data Warehouse: Designing Tools to Facilitate Business Understanding," disclosed pictorial figures showing the designing and accessing of a data warehouse.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 703-308-7064. The examiner can normally be reached on Monday-Thursday from 6:30 am -5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 703-308-1038. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-305-7687 for Official communications and 703-746-5622 for Non-Official communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.



September 5, 2002